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Construction Materials and Excavating

(The information in this report indicates the dominant soil condition but does not eliminate the need for onsite investigation)

Map symbol and soil name	Source for roadfill	Source for sand	Source for gravel	   Source for topsoil	Shallow excavations
AaC:	   Limitation 	Limitation	   Limitation 	   Limitation 	   Limitation 
Aceitunas	Very limited  ~low strength   (very limited)  ~shrink-swell   (moderately limited)	Very limited  -excess fines (thickest layer)  -excess fines (bottom layer)	Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	Very limited  -too clayey   (very limited)  -too acid   (limited)  -slope   (slightly limited)	Very limited  ~too clayey   (very limited)  ~cutbanks cave   (slightly limited)  ~slope   (slightly limited)
AcC:	j		į		İ
Aceitunas	Very limited   ~low strength   (very limited)   ~shrink-swell   (moderately limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	Very limited  -too clayey  (very limited)  -too acid  (limited)  -slope  (slightly limited)	Very limited  ~too clayey   (very limited)  ~cutbanks cave   (slightly limited)  ~slope   (slightly limited)
AdF2:	 		 		 
Adjuntas	Very limited  ~slope   (very limited)  ~low strength   (very limited)  ~depth to bedrock   (very limited)	Very limited  -excess fines (thickest layer)  -excess fines (bottom layer)	Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	Very limited  -depth to bedrock  (very limited)  -slope  (very limited)  -too clayey  (very limited)	Very limited  ~slope   (very limited)  ~soft bedrock <40"   (limited)  ~too clayey   (moderately limited)
AgC:	i		İ		į
Algarrobo	Very limited  ~low strength   (very limited)   	Very limited  -excess fines (thickest layer)  -excess fines (bottom layer)	Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	Very limited  -too sandy  (very limited)  -dense layer  (limited)  -too acid  (limited)	Very limited  ~cutbanks cave   (very limited)  ~dense layer   (limited)  ~too clayey   (moderately limited)

Map symbol and soil name	Source for roadfill	Source for sand	Source for gravel	Source for topsoil	Shallow excavations
	Limitation	Limitation	Limitation	Limitation	Limitation
AlB:		1			
Almirante	Very limited	Very limited	Very limited	Very limited	Very limited
	~low strength	~excess fines	~excess fines	~too clayey	-too clayey
	(very limited)	(thickest layer)	(bottom layer)	(very limited)	(very limited)
	~shrink-swell	~excess fines	~excess fines	~too acid	~cutbanks cave
	(very limited)	(bottom layer)	(thickest layer)	(limited)	(slightly limited)
lc:	İ				
Almirante	  Very limited	  Very limited	  Very limited	  Very limited	  Very limited
AIMII diice	~low strength	~excess fines	~excess fines	~too clayey	-too clayey
	(very limited)	(thickest layer)	(bottom layer)	(very limited)	(very limited)
	(very limited)  ~shrink-swell	~excess fines	~excess fines	(very limited)  ~too acid	(very rimited)  -cutbanks cave
	(very limited)	(bottom layer)	(thickest layer)	(limited)	(slightly limited)
	(very limited)	(DOCCOM Tayer)	(thickest layer)	! ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '	! ' '
	}	}		<pre> ~slope   (slightly limited)</pre>	<pre> ~slope   (slightly limited)</pre>
				(Blightly limited)	(Slightly limited)
mB:	į	į		l	
Almirante	Very limited	Very limited	Very limited	Very limited	Very limited
	-low strength	~excess fines	~excess fines	~too clayey	~too clayey
	(very limited)	(thickest layer)	(bottom layer)	(very limited)	(very limited)
	~shrink-swell	~excess fines	~excess fines	~too acid	~cutbanks cave
	(very limited)	(bottom layer)	(thickest layer)	(limited)	(slightly limited)
AmC:	] 	 			
Almirante	  Very limited	  Very limited	Very limited	  Very limited	  Very limited
	~low strength	~excess fines	~excess fines	~too clayey	~too clayey
	(very limited)	(thickest layer)	(bottom layer)	(very limited)	(very limited)
	~shrink-swell	~excess fines	~excess fines	-too acid	cutbanks cave
	(very limited)	(bottom layer)	(thickest layer)	(limited)	(slightly limited)
	(very rimiteed)	(boccom layer)	(chickese layer)	~slope	~slope
	İ	 	İ	(slightly limited)	(slightly limited)
_	!	!			!
AnB: Almirante	  Very limited	  Verv limited	  Very limited	  Very limited	  Very limited
	~low strength	~excess fines	~excess fines	~too clayey	-too clayey
	(very limited)	(thickest layer)	(bottom layer)	(very limited)	(very limited)
	(very limited)  ~shrink-swell	(chickest layer)  ~excess fines	~excess fines	(Very limited)  ~too acid	~cutbanks cave
	(very limited)	(bottom layer)	(thickest layer)	(limited)	(slightly limited)
	(very rimited)	(DOCCOM Layer)	(thickest tayer)	i (TIWILEGI)	(sriducia rimited)

Map symbol and soil name	Source for roadfill	Source for sand	   Source for gravel	Source for topsoil	   Shallow excavations
    a.	 Limitation	Limitation	 Limitation	Limitation	 Limitation
AnC:   Almirante     -  -  -	  Very limited  ~low strength   (very limited)  ~shrink-swell   (very limited)	Very limited -excess fines (thickest layer) -excess fines (bottom layer)	  very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	   Very limited   ~too clayey   (very limited)   ~too acid   (limited)   ~slope   (slightly limited)	   Very limited   ~too clayey   (very limited)   ~cutbanks cave   (slightly limited)   ~slope   (slightly limited)
AoD2:	İ		į	İ	İ
Alonso	Very limited  ~low strength   (very limited)  ~shrink-swell   (very limited)  ~slope   (slightly limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer) 	Very limited  ~too clayey   (very limited)  ~slope   (very limited)  ~too acid   (slightly limited)	Very limited  ~too clayey   (very limited)  ~slope   (very limited)  ~cutbanks cave   (slightly limited)
AoE2:					
Alonso	Very limited  ~low strength   (very limited)  ~shrink-swell   (very limited)  ~slope   (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer) 	Very limited  ~slope   (very limited)  ~too clayey   (very limited)  ~too acid   (slightly limited)	Very limited  ~slope   (very limited)  ~too clayey   (very limited)  ~cutbanks cave   (slightly limited)
AoF2:	İ		į	İ	İ
Alonso	Very limited  ~slope   (very limited)  ~low strength   (very limited)  ~shrink-swell   (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	Very limited  ~slope   (very limited)  ~too clayey   (very limited)  ~too acid   (slightly limited)	Very limited <pre> ~slope   (very limited)  ~too clayey   (very limited)  ~cutbanks cave   (slightly limited)</pre>
ArC:					
Arecibo    	Not limited         	Probable source ~excess fines (bottom layer)	Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	Very limited  ~too sandy   (very limited)  ~too acid   (limited)	Very limited  ~cutbanks cave   (very limited) 

Map symbol and soil name	   Source for roadfill	Source for sand	Source for gravel	Source for topsoil	Shallow excavations
    Ba:	   Limitation	   Limitation	Limitation	Limitation	Limitation
Bajura    Bajura      	  very limited  ~shrink-swell   (very limited)  ~low strength   (very limited)  ~wetness   (limited)	  Very limited  ~excess fines   (thickest layer)  ~excess fines   (bottom layer)	Very limited   ~excess fines   (bottom layer)   ~excess fines   (thickest layer)	  Very limited  ~too clayey   (very limited)  ~wetness   (limited)	Very limited
BcB:   Bayamon    	  Very limited  ~low strength   (very limited)  ~shrink-swell   (very limited)	  Very limited  ~excess fines   (thickest layer)  ~excess fines   (bottom layer)	  Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	  Very limited  ~too clayey   (very limited)  ~too acid   (slightly limited)	  Very limited  ~too clayey   (very limited)  ~cutbanks cave   (slightly limited)
  BcC:	 	 			
Bayamon	Very limited  ~low strength   (very limited)  ~shrink-swell   (very limited)	Very limited  ~excess fines   (thickest layer)  ~excess fines   (bottom layer)	Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	Very limited  ~too clayey   (very limited)  ~too acid   (slightly limited)  ~slope   (slightly limited)	Very limited  ~too clayey   (very limited)  ~cutbanks cave   (slightly limited)  ~slope   (slightly limited)
BsB:	İ		i	İ	İ
Bayamon	Very limited  ~low strength   (very limited)  ~shrink-swell   (very limited)	Very limited  ~excess fines   (thickest layer)  ~excess fines   (bottom layer)	Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	Very limited  ~too clayey   (very limited)  ~too acid   (slightly limited)	Very limited   ~too clayey   (very limited)   ~cutbanks cave   (slightly limited)
  BsC:			i		
Bayamon	Very limited  ~low strength   (very limited)  ~shrink-swell   (very limited)	Very limited  -excess fines  (thickest layer)  -excess fines  (bottom layer)	Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	Very limited  ~too clayey   (very limited)  ~too acid   (slightly limited)  ~slope   (slightly limited)	Very limited  ~too clayey   (very limited)  ~cutbanks cave   (slightly limited)  ~slope   (slightly limited)

Map symbol and soil name	Source for roadfill	Source for sand	Source for gravel	Source for topsoil	Shallow excavations
DD.	Limitation	   Limitation	Limitation	Limitation	   Limitation
ByB: Bayamon	  Very limited  ~low strength   (very limited)  ~shrink-swell   (very limited)	  Very limited  ~excess fines   (thickest layer)  ~excess fines   (bottom layer)	Very limited   ~excess fines   (bottom layer)   ~excess fines   (thickest layer)	  Very limited  ~too clayey   (very limited)  ~too acid   (slightly limited)	Very limited
ByC: Bayamon	  Very limited  ~low strength   (very limited)  ~shrink-swell   (very limited)	  Very limited  ~excess fines   (thickest layer)  ~excess fines   (bottom layer)	Very limited  -excess fines  (bottom layer)  -excess fines  (thickest layer)	Very limited   ~too clayey   (very limited)   ~too acid   (slightly limited)   ~slope   (slightly limited)	Very limited   ~too clayey   (very limited)   ~cutbanks cave   (slightly limited)   ~slope   (slightly limited)
CaF: Caguabo	  Very limited  ~depth to bedrock   (very limited)  ~slope   (very limited)	  Very limited  ~excess fines   (thickest layer)  ~excess fines   (bottom layer)	Limited  ~excess fines  (bottom layer)  ~excess fines  (thickest layer)	Very limited   -depth to bedrock   (very limited)   -slope   (very limited)   -small stones   (very limited)	Very limited   ~hard bedrock <40"   (very limited)   ~slope   (very limited)   ~cutbanks cave   (slightly limited)
CbF: Caguabo	Very limited  -depth to bedrock   (very limited)  -slope   (very limited)	  Very limited  ~excess fines   (thickest layer)  ~excess fines   (bottom layer)	Limited  ~excess fines  (bottom layer)  ~excess fines  (thickest layer)	Very limited   -depth to bedrock   (very limited)   -slope   (very limited)   -small stones   (very limited)	Very limited   ~hard bedrock <40"   (very limited)   ~slope   (very limited)   ~cutbanks cave   (slightly limited)
Rock outcrop	  Not rated   	  Not rated   	Not rated	  Not rated   	Not rated

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Map symbol and soil name	Source for roadfill	Source for sand	Source for gravel	Source for topsoil	Shallow excavations
	Limitation	Limitation	Limitation	Limitation	Limitation
CcD:					
Caracoles	Very limited	-	Very limited	Very limited	Very limited
	-depth to bedrock (very limited)	~excess fines (thickest layer) ~excess fines (bottom layer)	<pre>~excess fines (bottom layer) ~excess fines (thickest layer)</pre>	~depth to bedrock (very limited) ~slope (limited) ~too sandy	-hard bedrock <40" (very limited) -slope (limited) -cutbanks cave
    CcE:				(slightly limited)	(slightly limited)   
Caracoles	  Very limited	  Very limited	  Very limited	  Very limited	  Very limited
	-depth to bedrock   (very limited)  -slope   (very limited)	-excess fines (thickest layer) -excess fines (bottom layer)	-excess fines (bottom layer) -excess fines (thickest layer)	<pre>~depth to bedrock   (very limited) ~slope   (very limited) ~too sandy   (slightly limited)</pre>	-hard bedrock <40"  (very limited)  -slope  (very limited)  -cutbanks cave  (slightly limited)
CeC:					İ
Carrizales	Not limited    -  -  -	Probable source	Very limited -excess fines (bottom layer) -excess fines (thickest layer)	Very limited  -too sandy  (very limited)  -too acid  (slightly limited)	Very limited ~cutbanks cave (very limited)
Cf:	İ				i i
Catano	Not limited    -  -  -	Probable source	Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	Very limited ~too sandy (very limited) ~excess lime (limited)	Very limited ~cutbanks cave (very limited)
Cg:   Coastal beaches	  Not rated 	Not rated	Not rated	Not rated	Not rated
I	I	I	I	I	

Map symbol and soil name	   Source for roadfill	Source for sand	   Source for gravel	   Source for topsoil	
    ClD2:	   Limitation 	   Limitation 	   Limitation 	   Limitation 	   Limitation 
Colinas	Very limited   -depth to bedrock   (very limited)  -low strength   (very limited)  -slope   (slightly limited)	Very limited  -excess fines  (thickest layer)  -excess fines  (bottom layer)	Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	Very limited  ~depth to bedrock   (very limited)  ~excess lime   (very limited  ~slope   (very limited)	Very limited  ~slope   (very limited)  ~soft bedrock <40"   (limited)  ~cutbanks cave   (slightly limited)
C1E2:	İ	İ	į	į	İ
Colinas    	Very limited  ~depth to bedrock   (very limited)  ~slope   (very limited)  ~low strength   (very limited)	Very limited  ~excess fines   (thickest layer)  ~excess fines   (bottom layer)	Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	Very limited  ~depth to bedrock   (very limited)  ~excess lime   (very limited  ~slope   (very limited)	Very limited  ~slope   (very limited)  ~soft bedrock <40"   (limited)  ~cutbanks cave   (slightly limited)
  ClF2:	 		 		 
Colinas     -  -  -	Very limited  ~slope   (very limited)  ~depth to bedrock   (very limited)  ~low strength   (very limited)	Very limited  ~excess fines   (thickest layer)  ~excess fines   (bottom layer)	Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer) 	Very limited  ~depth to bedrock   (very limited)  ~excess lime   (very limited  ~slope   (very limited)	Very limited  ~slope   (very limited)  ~soft bedrock <40"   (limited)  ~cutbanks cave   (slightly limited)
CmF2:   Colinas      	  Very limited  ~depth to bedrock   (very limited)  ~slope   (very limited)  ~low strength   (very limited)	  very limited  ~excess fines   (thickest layer)  ~excess fines   (bottom layer)	  Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	  Very limited  ~depth to bedrock   (very limited)  ~excess lime   (very limited  ~slope   (very limited)	  Very limited  ~slope   (very limited)  ~soft bedrock <40"   (limited)  ~cutbanks cave   (slightly limited)

Map symbol and soil name	Source for roadfill	Source for sand	Source for gravel	Source for topsoil	Shallow excavations
	Limitation	   Limitation	Limitation	Limitation	Limitation
Cn:					
Coloso	Very limited	Very limited	Very limited	Very limited	Limited
	-low strength	~excess fines	-excess fines	-too clayey	~wetness
	(very limited)	(thickest layer)	(bottom layer)	(very limited)	(limited)
	~shrink-swell	~excess fines	~excess fines		-flooding
	(moderately limited)	(bottom layer)	(thickest layer)		(moderately limited
	ļ	ļ	ļ		-too clayey
	ļ		!		(moderately limited
CoE:	!		1		 
Consejo	  Very limited	  Very limited	  Very limited	  Very limited	  Very limited
Consejo	~slope	~excess fines	~excess fines	~slope	~slope
	(very limited)	(thickest layer)	(bottom layer)	(very limited)	(very limited)
	~low strength	~excess fines	~excess fines	-too clayey	-too clayey
	(very limited)	(bottom layer)	(thickest layer)	(very limited)	(limited)
	(**==2 =========	(200000,0_,	(0112011020 10201)	-too acid	~cutbanks cave
	İ		j	(limited)	(slightly limited)
	ļ	ļ	!		!
CoF:	!		!		
Consejo	Very limited	Very limited	Very limited	Very limited	Very limited
	~slope	~excess fines	~excess fines	~slope	~slope
	(very limited)	(thickest layer)	(bottom layer)	(very_limited)	(very_limited)
	~low strength	~excess fines	~excess fines	~too clayey	~too clayey
	(very limited)	(bottom layer)	(thickest layer)	(very limited)	(limited)
	ļ	!	ļ	~too acid	-cutbanks cave
	!		!	(limited)	(slightly limited)
CpE:	-	] 	[ [		 
Consumo	  Very limited	  Very limited	  Very limited	  Very limited	  Very limited
	~low strength	~excess fines	~excess fines	~slope	~slope
	(very limited)	(thickest layer)	(bottom layer)	(very limited)	(very limited)
	~slope	~excess fines	~excess fines	-too clayey	~too clayey
	(very limited)	(bottom layer)	(thickest layer)	(limited)	(limited)
	i	i	i	~too acid	~cutbanks cave
	i	i	i	(moderately limited)	(slightly limited)

Map symbol and soil name	   Source for roadfill	Source for sand	Source for gravel	   Source for topsoil	   Shallow excavations
CpF:	   Limitation	   Limitation	   Limitation	Limitation	   Limitation
Consumo	  very limited  ~slope   (very limited)  ~low strength   (very limited)	Very limited  -excess fines (thickest layer)  -excess fines (bottom layer)	Very limited  -excess fines  (bottom layer)  -excess fines  (thickest layer)	  very limited  ~slope   (very limited)  ~too clayey   (limited)  ~too acid   (moderately limited)	   Very limited   ~slope   (very limited)   ~too clayey   (limited)   ~cutbanks cave   (slightly limited)
CrC:					
Corozal	Very limited  ~low strength   (very limited)  ~wetness   (very limited)  ~shrink-swell   (slightly limited)	Very limited  -excess fines  (thickest layer)  -excess fines  (bottom layer)	Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	Very limited  ~too clayey   (very limited)  ~wetness   (very limited)  ~too acid   (moderately limited)	Very limited    -wetness   (very limited)    -too clayey   (limited)    -cutbanks cave   (slightly limited)
CsC: Corozo	  Not limited         	Probable source ~possible source (bottom layer)	Very limited  -excess fines (bottom layer)  -excess fines (thickest layer)	  Very limited  ~too sandy   (very limited)  ~dense layer   (limited)  ~too acid   (limited)	  Very limited  ~cutbanks cave   (very limited)  ~dense layer   (limited)  ~too clayey   (moderately limited)
CtB:	 			 	 
Coto	Very limited  ~low strength   (very limited)  ~shrink-swell   (very limited)	Very limited  ~excess fines  (thickest layer)  ~excess fines  (bottom layer)	Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	Very limited  ~too clayey   (very limited)  ~too acid   (slightly limited)	Very limited  ~too clayey   (very limited)  ~cutbanks cave   (slightly limited)
CtC:					
Coto	Very limited  ~low strength   (very limited)  ~shrink-swell   (very limited)	Very limited  -excess fines  (thickest layer)  -excess fines  (bottom layer)	Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	Very limited  ~too clayey   (very limited)  ~too acid   (slightly limited)  ~slope   (slightly limited)	Very limited  ~too clayey   (very limited)  ~cutbanks cave   (slightly limited)  ~slope   (slightly limited)

Map symbol and soil name	Source for roadfill	Source for sand	Source for gravel	Source for topsoil	Shallow excavations
	   Limitation 	   Limitation 	-    Limitation 	Limitation	Limitation
Cuchillas	Very limited   ~slope   (very limited)   ~depth to bedrock   (very limited)	Very limited  -excess fines  (thickest layer)  -excess fines  (bottom layer)	Very limited  -excess fines  (bottom layer)  -excess fines  (thickest layer)	Very limited   ~depth to bedrock   (very limited)   ~slope   (very limited)   ~too clayey   (limited)	Very limited   ~slope   (very limited)   ~soft bedrock <40"   (limited)   ~cutbanks cave   (slightly limited)
CvF:					
Cuchillas	Very limited  ~slope   (very limited)  ~depth to bedrock   (very limited)	Very limited  ~excess fines   (thickest layer)  ~excess fines   (bottom layer)	Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	Very limited  ~depth to bedrock   (very limited)  ~slope   (very limited)  ~too clayey   (limited)	Very limited  ~slope   (very limited)  ~soft bedrock <40"   (limited)  ~cutbanks cave   (slightly limited)
Rock outcrop	  Not rated   	  Not rated 	Not rated	  Not rated 	Not rated 
DaD2:	j I			İ	
Daguey	Very limited	Very limited  -excess fines  (thickest layer)  -excess fines  (bottom layer)	Very limited  -excess fines   (bottom layer)  -excess fines   (thickest layer)	Very limited   ~too clayey   (very limited)   ~slope   (very limited)   ~too acid   (slightly limited)	Very limited   ~too clayey   (very limited)   ~slope   (very limited)   ~cutbanks cave   (slightly limited)
EaB:					
Espinosa	Very limited  -low strength  (very limited)  -shrink-swell  (moderately limited)	Very limited  -excess fines  (thickest layer)  -excess fines  (bottom layer)	Very limitedexcess fines (bottom layer)excess fines (thickest layer)	Very limited  ~too clayey   (very limited)  ~too acid   (slightly limited)	Limited  ~too clayey   (limited)  ~cutbanks cave   (slightly limited)

   Map symbol and soil name	Source for roadfill	Source for sand	Source for gravel	Source for topsoil	   Shallow excavations
    EaC:	   Limitation	   Limitation	   Limitation	   Limitation	   Limitation
Espinosa	  Very limited  ~low strength   (very limited)  ~shrink-swell   (moderately limited)	Very limited  -excess fines  (thickest layer)  -excess fines  (bottom layer)	   Very limited   ~excess fines   (bottom layer)   ~excess fines   (thickest layer)	Very limited  -too clayey   (very limited)  -too acid   (slightly limited)  -slope   (slightly limited)	Limited  -too clayey   (limited)  -cutbanks cave   (slightly limited)  -slope   (slightly limited)
EbB:   Espinosa     -  -	  Very limited  ~low strength   (very limited)  ~shrink-swell   (moderately limited)	  Very limited  ~excess fines   (thickest layer)  ~excess fines   (bottom layer)	  Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	  Very limited  ~too clayey   (very limited)  ~too acid   (slightly limited)	Limited  ~too clayey   (limited)  ~cutbanks cave   (slightly limited)
EbC:					
Espinosa	Very limited  ~low strength   (very limited)  ~shrink-swell   (moderately limited) 	Very limited  ~excess fines   (thickest layer)  ~excess fines   (bottom layer)	Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer) 	Very limited  ~too clayey   (very limited)  ~too acid   (slightly limited)  ~slope   (slightly limited)	Limited  -too clayey   (limited)  -cutbanks cave   (slightly limited)  -slope   (slightly limited)
EcB:					
Espinosa	Very limited  ~low strength   (very limited)  ~shrink-swell   (moderately limited)	Very limited  -excess fines  (thickest layer)  -excess fines  (bottom layer)	Very limited	Very limited  ~too clayey   (very limited)  ~too acid   (slightly limited)	Limited  -too clayey   (limited)  -cutbanks cave   (slightly limited)
EcC:					
Espinosa	Very limited  ~low strength   (very limited)  ~shrink-swell   (moderately limited)	Very limited <pre>~excess fines (thickest layer) ~excess fines (bottom layer)</pre>	Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	Very limited  ~too clayey   (very limited)  ~too acid   (slightly limited)  ~slope   (slightly limited)	Limited  -too clayey   (limited)  -cutbanks cave   (slightly limited)  -slope   (slightly limited)

## Map symbol and soil name Source for roadfill Source for sand Source for gravel Source for topsoil Shallow excavations Limitation Limitation Limitation Limitation Limitation Estacion-----Not limited Probable source Limited Very limited Very limited excess fines ~excess fines ~cutbanks cave ~too sandy (thickest layer) (very limited) (thickest layer) (very limited) excess fines ~small stones ~flooding (bottom layer) (very limited) (moderately limited) ~area reclaim ~too clayey (very limited) (slightly limited) Ga: Garrochales-----Limited Very limited Very limited Limited Very limited ~wetness ~excess fines ~excess fines ~wetness ~wetness (limited) (thickest layer) (bottom layer) (limited) (very limited) ~excess fines excess fines ~flooding (moderately limited) (bottom layer) (thickest layer) ~cutbanks cave (slightly limited) GeC: Limited Very limited Very limited Very limited Very limited Guerrero-----~low strength ~excess fines ~excess fines ~too clayey ~cutbanks cave (limited) (thickest layer) (bottom layer) (very limited) (very limited) excess fines excess fines ~too clayey ~too sandy (bottom layer) (thickest layer) (moderately limited) (limited) ~too acid (slightly limited) HD: Hydraguents-----|Limited Very limited Very limited Very limited Very limited ~excess fines ~excess fines ~excess salts ~wetness ~wetness (limited) (thickest layer) (bottom layer) (very limited) (very limited) ~excess fines excess fines ~wetness ~flooding (bottom layer) (thickest layer) (limited) (moderately limited) HmE: Very limited Very limited Very limited Very limited Very limited Humatas----~low strength ~excess fines ~excess fines ~slope ~slope (very limited) (thickest layer) (bottom layer) (very limited) (very limited) ~excess fines ~too clayey ~too clayey ~slope ~excess fines (very limited) (very limited) (bottom layer) (thickest laver) (very limited) ~shrink-swell ~too acid ~cutbanks cave (moderately limited) (slightly limited) (slightly limited)

Map symbol and soil name	   Source for roadfill	Source for sand	   Source for gravel	   Source for topsoil	   Shallow excavations
 	   Limitation    Very limited	   Limitation    Very limited	   Limitation    Very limited	   Limitation    Very limited	   Limitation    Very limited
	very limited   ~slope   (very limited)  ~low strength   (very limited)  ~shrink-swell   (moderately limited)	<pre>recess fines (thickest layer) recess fines (bottom layer)</pre>	very limited     vercess fines   (bottom layer)   vercess fines   (thickest layer)	very limited   ~slope   (very limited)  ~too clayey   (very limited)  ~too acid   (slightly limited)	~slope   (very limited)  ~too clayey   (very limited)  ~cutbanks cave   (slightly limited)
HS:   Hydraquents      	  very limited  ~wetness   (very limited) 	  -excess fines   (thickest layer)  -excess fines   (bottom layer)	  Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	  Very limited  ~wetness   (very limited)  ~excess salts   (very limited)	Very limited   ~ponded (wetness)   (very limited)   ~wetness   (very limited)   ~flooding   (moderately limited)
InD:   Ingenio    	  Very limited  ~low strength   (very limited)  ~shrink-swell   (slightly limited)	Very limited  -excess fines  (thickest layer)  -excess fines  (bottom layer)	  Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	  Very limited  ~too clayey   (very limited)  ~slope   (limited)  ~too acid   (moderately limited)	  Limited  ~slope   (limited)  ~too clayey   (moderately limited)  ~cutbanks cave   (slightly limited)
InE:   Ingenio    	  Very limited  ~low strength   (very limited)  ~slope   (very limited)  ~shrink-swell   (slightly limited)	Very limited  -excess fines (thickest layer)  -excess fines (bottom layer)	  Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	  very limited  ~slope   (very limited)  ~too clayey   (very limited)  ~too acid   (moderately limited)	  Very limited  ~slope   (very limited)  ~too clayey   (moderately limited)  ~cutbanks cave   (slightly limited)

Map symbol and soil name	   Source for roadfill	Source for sand	   Source for gravel	   Source for topsoil	   Shallow excavations
IsC:	Limitation  Very limited  large strength  (very limited)		Limitation		
	~depth to bedrock   (very limited)   ~shrink-swell   (very limited)	rexcess fines (bottom layer)	~excess fines   (thickest layer) 	~depth to bedrock   (very limited) 	\soft bedrock <40"   (moderately limited)  -cutbanks cave   (slightly limited)
Ja: Jareales	  Limited  ~wetness   (limited)  ~shrink-swell   (slightly limited)	Very limited  -excess fines  (thickest layer)  -excess fines  (bottom layer)	Very limited   ~excess fines   (bottom layer)   ~excess fines   (thickest layer)	  Very limited  ~too clayey   (very limited)  ~wetness   (limited)	  Very limited  ~wetness   (very limited)  ~flooding   (moderately limited)  ~too clayey   (moderately limited)
JoC: Jobos	  Very limited  ~low strength   (very limited)  ~shrink-swell   (moderately limited)	  Very limited  ~excess fines   (thickest layer)  ~excess fines   (bottom layer)	  Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	  Very limited  ~too clayey   (very limited)  ~too acid   (slightly limited)	  Limited  ~too clayey   (limited)  ~cutbanks cave   (slightly limited)
JuD2: Juncal	  Very limited  ~low strength   (very limited)  ~shrink-swell   (very limited)  ~slope   (slightly limited)	  Very limited  ~excess fines   (thickest layer)  ~excess fines   (bottom layer)	  Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	  Very limited  ~too clayey   (very limited)  ~slope   (very limited)	  Very limited  ~slope   (very limited)  ~too clayey   (moderately limited)  ~cutbanks cave   (slightly limited)
JuE2: Juncal	  Very limited  ~low strength   (very limited)  ~shrink-swell   (very limited)  ~slope   (very limited)	  Very limited  ~excess fines   (thickest layer)  ~excess fines   (bottom layer)	  Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	  Very limited  ~slope   (very limited)  ~too clayey   (very limited)	Very limited  -slope   (very limited)  -too clayey   (moderately limited)  -cutbanks cave   (slightly limited)

Map symbol and soil name	   Source for roadfill	Source for sand	Source for gravel	   Source for topsoil	   Shallow excavations
    LcE2:	   Limitation	   Limitation	   Limitation	   Limitation	   Limitation
Lirios  	  Very limited  ~low strength   (very limited)  ~slope   (very limited)	   Very limited   ~excess fines   (thickest layer)   ~excess fines   (bottom layer)	   Very limited   ~excess fines   (bottom layer)   ~excess fines   (thickest layer)	Very limited  ~slope   (very limited)  ~too clayey   (very limited)  ~too acid   (slightly limited)	  very limited  ~slope   (very limited)  ~too clayey   (limited)  ~cutbanks cave   (slightly limited)
LcF2:					
Lirios    	Very limited  ~slope   (very limited)  ~low strength   (very limited)	Very limited  ~excess fines   (thickest layer)  ~excess fines   (bottom layer)	Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	Very limited  -slope   (very limited)  -too clayey   (very limited)  -too acid   (slightly limited)	Very limited  ~slope   (very limited)  ~too clayey   (limited)  ~cutbanks cave   (slightly limited)
LDF:		    Not rated	    Not rated	    Not rated	    Not rated
LgD:	j 	j 	<u> </u>	 	j 
Los guineos    	Very limited  -low strength  (very limited)  -shrink-swell  (moderately limited)  -slope  (slightly limited)	Very limited  -excess fines  (thickest layer)  -excess fines  (bottom layer)	Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	Very limited -too clayey (very limited) -slope (very limited) -too acid (limited)	Very limited  ~slope   (very limited)  ~too clayey   (limited)  ~cutbanks cave   (slightly limited)
LgE:	<u> </u>	<u> </u>	<u> </u>		
Los guineos            	Very limited  -low strength   (very limited)  -slope   (very limited)  -shrink-swell   (moderately limited)	Very limited  ~excess fines   (thickest layer)  ~excess fines   (bottom layer) 	Very limited  -excess fines  (bottom layer)  -excess fines  (thickest layer)	Very limited <pre> <slope (limited)<="" (very="" <too="" acid="" clayey="" limited)="" pre=""></slope></pre>	Very limited  ~slope   (very limited)  ~too clayey   (limited)  ~cutbanks cave   (slightly limited)

Map symbol and soil name	Source for roadfill	Source for sand	Source for gravel	Source for topsoil	   Shallow excavations
LqF:	   Limitation 	   Limitation 	Limitation	Limitation	   Limitation 
Los guineos	Very limited <pre>  color     very limited     low strength     very limited     shrink-swell     (moderately limited     color     col</pre>	Very limited  -excess fines (thickest layer)  -excess fines (bottom layer)	Very limited  ~excess fines  (bottom layer)  ~excess fines  (thickest layer)	Very limited  ~slope   (very limited)  ~too clayey   (very limited)  ~too acid   (limited)	Very limited  ~slope   (very limited)  ~too clayey   (limited)  ~cutbanks cave   (slightly limited)
LME:					
Los guineos	Very limited  ~slope   (very limited)  ~low strength   (very limited)  ~shrink-swell   (moderately limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited	Very limited  ~slope   (very limited)  ~too clayey   (very limited)  ~too acid   (limited)	Very limited  ~slope   (very limited)  ~too clayey   (limited)  ~cutbanks cave   (slightly limited)
Maricao	  very limited  ~slope   (very limited)  ~low strength   (very limited)	Very limited  -excess fines (thickest layer)  -excess fines (bottom layer)	Very limited  -excess fines  (bottom layer)  -excess fines  (thickest layer)	Very limited   ~slope   (very limited)   ~too clayey   (very limited)   ~too acid   (limited)	Very limited <pre></pre>
Rock outcrop	  Not rated   	Not rated	  Not rated 	  Not rated   	  Not rated   
  MaF2:					
Maraguez	Very limited  ~slope   (very limited) 	Very limited  -excess fines (thickest layer)  -excess fines (bottom layer)	Very limited  -excess fines  (bottom layer)  -excess fines  (thickest layer)	Very limited   ~slope   (very limited)   ~small stones   (moderately limited)   ~too sandy   (slightly limited)	Very limited  -slope (very limited)  -cutbanks cave (slightly limited)

Map symbol and soil name	Source for roadfill	Source for sand	Source for gravel	Source for topsoil	Shallow excavations
McF:	   Limitation 	   Limitation 	Limitation	   Limitation 	   Limitation 
Maricao	Very limited  ~slope   (very limited)  ~low strength   (very limited)	Very limited  -excess fines (thickest layer)  -excess fines (bottom layer)	Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	Very limited  ~slope   (very limited)  ~too clayey   (very limited)  ~too acid   (limited)	Very limited  ~slope   (very limited)  ~too clayey   (limited)  ~cutbanks cave   (slightly limited)
MmF:			į	İ	
Matanzas	Very limited    ~low strength   (very limited)   ~shrink-swell   (very limited)   ~depth to bedrock   (moderately limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer) 	Very limited  ~too clayey   (very limited)   	Very limited  -too clayey   (very limited)  -depth to bedrock   (limited)  -cutbanks cave   (slightly limited)
Rock outcrop	Not rated	Not rated	Not rated	  Not rated 	Not rated
MnB:			] 	 	
Matanzas	Very limited   -low strength   (very limited)  -shrink-swell   (very limited)  -depth to bedrock   (moderately limited)	Very limited  -excess fines (thickest layer)  -excess fines (bottom layer)	Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	Very limited  ~too clayey   (very limited) 	Very limited  -too clayey  (very limited)  -depth to bedrock  (limited)  -cutbanks cave  (slightly limited)
MoC2:			İ	<u> </u>	
Moca	Very limited   -low strength   (very limited)  -shrink-swell   (moderately limited)	Very limited  -excess fines (thickest layer)  -excess fines (bottom layer)	Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	Very limited  ~too clayey   (very limited)  ~too acid   (moderately limited)	Limited -too clayey (limited) -cutbanks cave (slightly limited)

Map symbol and soil name	   Source for roadfill	Source for sand	Source for gravel	Source for topsoil	   Shallow excavations
	Limitation	Limitation	Limitation	Limitation	Limitation
MoD2:			!	!	
Moca	Very limited	Very limited	Very limited	Very limited	Very limited
	~low strength	~excess fines	~excess fines	~too clayey	~slope
	(very limited)	(thickest layer)	(bottom layer)	(very limited)	(very_limited)
	~shrink-swell	~excess fines	~excess fines	~slope	~too clayey
	(moderately limited)	(bottom layer)	(thickest layer)	(very limited)	(limited)
	~slope		!	~too acid	~cutbanks cave
	(slightly limited)		 	(moderately limited)	(slightly limited) 
MoE2:			İ	İ	
Moca	Very limited	Very limited	Very limited	Very limited	Very limited
	~low strength	~excess fines	-excess fines	~slope	~slope
	(very limited)	(thickest layer)	(bottom layer)	(very limited)	(very limited)
	~slope	~excess fines	-excess fines	-too clayey	~too clayey
	(very limited)	(bottom layer)	(thickest layer)	(very limited)	(limited)
	~shrink-swell		ļ	-too acid	~cutbanks cave
	(moderately limited)	İ		(moderately limited)	(slightly limited)
MpF2:				İ	
Morado	Very limited	Very limited	Very limited	Very limited	Very limited
	~slope	~excess fines	~excess fines	~slope	~slope
	(very limited)	(thickest layer)	(bottom layer)	(very limited)	(very limited)
	~low strength	~excess fines	~excess fines	~depth to bedrock	~soft bedrock <40"
	(very limited)	(bottom layer)	(thickest layer)	(very limited)	(moderately limited)
	~depth to bedrock			-too clayey	~cutbanks cave
	(very limited)		1	(limited)	(slightly limited)
MuE:					
Mucara	Very limited	Very limited	Very limited	Very limited	Very limited
	~depth to bedrock	~excess fines	~excess fines	-depth to bedrock	~slope
	(very limited)	(thickest layer)	(bottom layer)	(very limited)	(very limited)
	~slope	~excess fines	~excess fines	~slope	~soft bedrock <40"
	(very limited)	(bottom layer)	(thickest layer)	(very limited)	(limited)
	~shrink-swell			1	-too clayey
	(slightly limited)				(moderately limited)

Map symbol and soil name	   Source for roadfill	Source for sand	   Source for gravel	   Source for topsoil	   Shallow excavations
	Limitation	Limitation	Limitation	Limitation	Limitation
MuF:   Mucara      	  Very limited  ~slope   (very limited)  ~depth to bedrock   (very limited)  ~shrink-swell   (slightly limited)	  Very limited  ~excess fines   (thickest layer)  ~excess fines   (bottom layer)	  Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	  Very limited  ~depth to bedrock   (very limited)  ~slope   (very limited)	  Very limited  ~slope   (very limited)  ~soft bedrock <40"   (limited)  ~too clayey   (moderately limited)
NaD:					
Naranjo   	Very limited  ~low strength   (very limited)  ~shrink-swell   (very limited)	Very limited <pre> ~excess fines   (thickest layer)  ~excess fines   (bottom layer)</pre>	Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	Very limited  -excess lime   (very limited  -too clayey   (very limited)  -slope   (limited)	Limited  ~slope   (limited)  ~too clayey   (moderately limited)  ~cutbanks cave   (slightly limited)
NaE:					
Naranjo	Very limited  ~low strength   (very limited)  ~shrink-swell   (very limited)  ~slope   (very limited)	Very limited  ~excess fines   (thickest layer)  ~excess fines   (bottom layer)	Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer) 	Very limited  ~excess lime   (very limited  ~slope   (very limited)  ~too clayey   (very limited)	Very limited
NaF:					
Naranjo    	Very limited  ~slope   (very limited)  ~low strength   (very limited)  ~shrink-swell   (very limited)	Very limited  -excess fines  (thickest layer)  -excess fines (bottom layer)	Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	Very limited  ~excess lime   (very limited  ~slope   (very limited)  ~too clayey   (very limited)	Very limited
Pa:				  -::	
Palmar    	Limited  ~wetness   (limited) 	Very limited  ~excess fines   (thickest layer)  ~excess fines   (bottom layer)	Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	Limited  ~wetness   (limited) 	Very limited  ~wetness   (very limited)  ~flooding   (moderately limited)

Map symbol and soil name	   Source for roadfill	   Source for sand	   Source for gravel	   Source for topsoil	   Shallow excavations
PeF:	   Limitation	   Limitation	   Limitation	Limitation	   Limitation
Pellejas	  Very limited  ~slope   (very limited)   	Possible source  -excess fines   (thickest layer)  -possible source   (bottom layer)	   Very limited   ~excess fines   (bottom layer)   ~excess fines   (thickest layer)	  very limited  ~too sandy   (very limited)  ~slope   (very limited)  ~too acid   (slightly limited)	Very limited  -slope (very limited)  -cutbanks cave (very limited)  -too clayey (slightly limited)
PhC2:					
Perchas	Very limited  ~low strength   (very limited)  ~shrink-swell   (very limited)	Very limited  ~excess fines   (thickest layer)  ~excess fines   (bottom layer)	Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	Very limited  ~too clayey   (very limited)  ~too acid   (moderately limited)	Limited  ~too clayey   (limited)  ~cutbanks cave   (slightly limited)  ~wetness   (slightly limited)
PhD2:					
Perchas	Very limited  ~low strength   (very limited)  ~shrink-swell   (very limited)  ~slope   (slightly limited)	Very limited  ~excess fines   (thickest layer)  ~excess fines   (bottom layer) 	Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	Very limited  ~too clayey   (very limited)  ~slope   (very limited)  ~too acid   (moderately limited)	Very limited  ~slope   (very limited)  ~too clayey   (limited)  ~cutbanks cave   (slightly limited)
Ps: Pits	  Not rated 	  Not rated 	  Not rated 	  Not rated 	  Not rated 
Pt: Pits	    Not rated	    Not rated	    Not rated	    Not rated	    Not rated
Re:					
Reilly	Not limited    -  -  -  -  -	Very limited  ~excess fines   (thickest layer)  ~excess fines   (bottom layer)	Possible source  -excess fines   (thickest layer)  -possible source   (bottom layer)	Very limited  ~small stones   (very limited)  ~area reclaim   (very limited) 	Very limited  ~cutbanks cave   (very limited)  ~wetness   (limited)  ~flooding   (moderately limited)

Map symbol and soil name	   Source for roadfill	Source for sand	   Source for gravel	   Source for topsoil	   Shallow excavations
    RlC:   Rio lajas	Limitation Not limited	Limitation Probable source	Limitation	Limitation	Limitation
		~excess fines   (bottom layer)   	<pre> ~excess fines   (bottom layer)  ~excess fines   (thickest layer)  </pre>	~too sandy   (very limited)     	~cutbanks cave   (very limited)   
Rm:   Riverwash  	Not rated	  Not rated 	  Not rated   	  Not rated   	  Not rated 
  Ro:   Rock outcrop  	  Not rated 	  Not rated 	  Not rated 	  Not rated 	  Not rated 
  Rr:   Rock outcrop	Not rated	Not rated	    Not rated 	    Not rated   	  Not rated 
  RsF:   Rock outcrop	Not rated	Not rated	    Not rated 	    Not rated   	  Not rated 
San german	Very limited  -depth to bedrock  (very limited)  -slope  (very limited)	  Very limited  ~excess fines   (thickest layer)  ~excess fines   (bottom layer)	  Limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	  Very limited  ~depth to bedrock   (very limited)  ~excess lime   (very limited  ~slope   (very limited)	Very limited

   Map symbol and soil name	   Source for roadfill	Source for sand	Source for gravel	   Source for topsoil	   Shallow excavations
RtF:	   Limitation 	   Limitation 	-     Limitation 	Limitation 	Limitation
Rock outcrop	Not rated   	Not rated 	Not rated 	Not rated 	Not rated 
   Tanama     -  -	Very limited  -shrink-swell   (very limited)  -low strength   (very limited)  -depth to bedrock   (very limited)	  Very limited  ~excess fines   (thickest layer)  ~excess fines   (bottom layer)	Very limited   ~excess fines   (bottom layer)   ~excess fines   (thickest layer)	Very limited   vdepth to bedrock   (very limited)   vto clayey   (very limited)   vslope   (very limited)	Very limited   ~hard bedrock <40"   (very limited)   ~too clayey   (very limited)   ~slope   (very limited)
SaB: Sabana seca	  Very limited  ~low strength  (very limited)  ~shrink-swell  (very limited)  ~wetness  (slightly limited)	  Very limited  ~excess fines  (thickest layer)  ~excess fines  (bottom layer)	Very limited	   Very limited   ~too clayey   (very limited)   ~too acid   (limited)   ~wetness   (slightly limited)	   Very limited   ~too clayey   (very limited)   ~wetness   (very limited)   ~cutbanks cave   (slightly limited)
SgD:					
San german     -  -  -  -	Very limited  ~depth to bedrock   (very limited)   	Very limited  ~excess fines   (thickest layer)  ~excess fines   (bottom layer)	Limited <pre>~excess fines   (bottom layer)   ~excess fines   (thickest layer)</pre>	Very limited   ~depth to bedrock   (very limited)   ~excess lime   (very limited   ~small stones   (very limited)	Very limited   ~hard bedrock <40"   (very limited)   ~slope   (limited)   ~cutbanks cave   (slightly limited)
SgF:   San german     -  -  -	  Very limited  ~depth to bedrock   (very limited)  ~slope   (very limited)	  Very limited  ~excess fines   (thickest layer)  ~excess fines   (bottom layer)	Limited  ~excess fines  (bottom layer)  ~excess fines  (thickest layer)	Very limited   ~depth to bedrock   (very limited)   ~excess lime   (very limited   ~slope   (very limited)	Very limited   ~hard bedrock <40"   (very limited)   ~slope   (very limited)   ~cutbanks cave   (slightly limited)

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Map symbol and soil name	Source for roadfill	Source for sand	Source for gravel	Source for topsoil	Shallow excavations
SmF:	Limitation	Limitation	Limitation	Limitation	Limitation
San sebastian	  very limited  ~shrink-swell   (very limited)  ~slope   (very limited)	Very limited	Possible source  -excess fines   (thickest layer)  -possible source   (bottom layer)	Very limited   ~excess lime   (very limited   ~slope   (very limited)   ~small stones   (very limited)	Very limited   ~slope   (very limited)   ~cutbanks cave   (very limited)   ~too clayey   (limited)
SnC:	İ		i		
Santa clara	Very limited  ~low strength   (very limited)  ~depth to bedrock   (very limited)  ~shrink-swell   (very limited)	Very limited  ~excess fines   (thickest layer)  ~excess fines   (bottom layer)	Very limited  -excess fines  (bottom layer)  -excess fines  (thickest layer)	Very limited  ~too clayey   (very limited)  ~depth to bedrock   (limited)	Very limited   ~hard bedrock <40"   (very limited)   ~too clayey   (limited)   ~cutbanks cave   (slightly limited)
sns:			i	İ	
(soils not surveyed)	Very limited  ~slope   (very limited)  ~low strength   (very limited)	Very limited  ~excess fines   (thickest layer)  ~excess fines   (bottom layer)	Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	Very limited  ~slope   (very limited) 	Very limited  ~slope   (very limited) 
soc:	(1017 1111111001)		(====================================	İ	
Soller	Very limited  ~low strength   (very limited)  ~depth to bedrock   (very limited)  ~shrink-swell   (very limited)	Very limited  ~excess fines   (thickest layer)  ~excess fines   (bottom layer)	Very limited  -excess fines  (bottom layer)  -excess fines  (thickest layer)	Very limited  ~depth to bedrock   (very limited)  ~too clayey   (very limited)  ~slope   (slightly limited)	Very limited   ~hard bedrock <40"   (very limited)   ~too clayey   (limited)   ~cutbanks cave   (slightly limited)
SoD:					
Soller	Very limited   ~low strength   (very limited)   ~depth to bedrock   (very limited)   ~shrink-swell   (very limited)	Very limited	Very limited   ~excess fines   (bottom layer)   ~excess fines   (thickest layer)	Very limited   ~depth to bedrock   (very limited)   ~too clayey   (very limited)   ~slope   (very limited)	Very limited   ~hard bedrock <40"   (very limited)   ~slope   (very limited)   ~too clayey   (limited)

Map symbol and soil name	Source for roadfill	Source for sand	Source for gravel	Source for topsoil	Shallow excavations
 SoF:	   Limitation	   Limitation	Limitation	   Limitation	Limitation
Soller	  Very limited	  Very limited	  Very limited	  Very limited	  Very limited
	~low strength   (very limited)	~excess fines   (thickest layer)  ~excess fines	-excess fines   (bottom layer)  -excess fines	-depth to bedrock   (very limited)  -slope	~hard bedrock <40"   (very limited)
	<pre> ~depth to bedrock   (very limited)  ~shrink-swell</pre>	~excess fines   (bottom layer) 	rexcess fines   (thickest layer) 	~slope   (very limited)  ~too clayey	<pre> ~slope   (very limited)  ~too clayey</pre>
	(very limited)		į i	(very limited)	(limited)
SpD:					
Soller	Very limited  ~low strength   (very limited)  ~depth to bedrock   (very limited)  ~shrink-swell   (very limited)	Very limited  ~excess fines   (thickest layer)  ~excess fines   (bottom layer)	Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	Very limited  ~depth to bedrock   (very limited)  ~too clayey   (very limited)  ~slope   (very limited)	Very limited  ~hard bedrock <40"   (very limited)  ~slope   (very limited)  ~too clayey   (limited)
SpF:		<u> </u>		į	<u> </u>
Soller	Very limited  ~low strength   (very limited)  ~depth to bedrock   (very limited)  ~shrink-swell   (very limited)	Very limited  ~excess fines   (thickest layer)  ~excess fines   (bottom layer) 	Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer) 	Very limited  ~depth to bedrock   (very limited)  ~slope   (very limited)  ~too clayey   (very limited)	Very limited  ~hard bedrock <40"   (very limited)  ~slope   (very limited)  ~too clayey   (limited)
SrF:			 		
Soller	Very limited  ~low strength   (very limited)  ~depth to bedrock   (very limited)  ~shrink-swell   (very limited)	Very limited  ~excess fines   (thickest layer)  ~excess fines   (bottom layer)	Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	Very limited  ~depth to bedrock   (very limited)  ~too clayey   (very limited)  ~slope   (very limited)	Very limited  ~hard bedrock <40"   (very limited)  ~slope   (very limited)  ~too clayey   (limited)
Rock outcrop	Not rated	Not rated	Not rated     	Not rated     	Not rated   

Map symbol and soil name	Source for roadfill	Source for sand	Source for gravel	Source for topsoil	Shallow excavations
	   Limitation 	   Limitation 	Limitation	Limitation	   Limitation 
Tanama	  Very limited  ~shrink-swell   (very limited)	Very limited ~excess fines (thickest layer)	Very limited  ~excess fines   (bottom layer)	Very limited  ~depth to bedrock   (very limited)	  Very limited  ~hard bedrock <40"   (very limited)
	(very fimited)   (very limited)  -depth to bedrock   (very limited)	~excess fines (bottom layer)	<pre>  (bottom layer)   ~excess fines   (thickest layer)                                      </pre>	<pre>  (very limited)   ~too clayey   (very limited)   ~large stones   (slightly limited)  </pre>	(very limited)   contained   (very limited)   cutbanks cave   (slightly limited)
CaC2:					
Tanama	Very limited  ~shrink-swell   (very limited)  ~low strength   (very limited)  ~depth to bedrock   (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	Very limited  ~depth to bedrock   (very limited)  ~too clayey   (very limited)  ~large stones   (slightly limited)	Very limited  ~hard bedrock <40"   (very limited)  ~too clayey   (very limited)  ~cutbanks cave   (slightly limited)
TaD2:					
Tanama	Very limited  ~shrink-swell   (very limited)  ~low strength   (very limited)  ~depth to bedrock   (very limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	Very limited  ~depth to bedrock   (very limited)  ~too clayey   (very limited)  ~slope   (very limited)	Very limited  ~hard bedrock <40"   (very limited)  ~too clayey   (very limited)  ~slope   (very limited)
Tb:					
Tiburones	Limited  ~wetness   (limited) 	Very limited  -excess fines  (thickest layer)  -excess fines  (bottom layer)	Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	Limited  ~wetness   (limited) 	Very limited  ~wetness   (very limited)  ~flooding   (moderately limited
To:					
Toa	Very limited  -low strength   (very limited)  -shrink-swell   (moderately limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	Very limited  ~too clayey   (very limited)   	Moderately limited  ~flooding   (moderately limited  ~too clayey   (moderately limited  ~cutbanks cave   (slightly limited)

   Map symbol and soil name	   Source for roadfill	Source for sand	   Source for gravel	   Source for topsoil	   Shallow excavations
    TP:	   Limitation 	Limitation	   Limitation 	   Limitation 	   Limitation   
Tropopsamments	Not limited	Probable source	Very limited  -excess fines  (bottom layer)  -excess fines  (thickest layer)	Very limited  -too sandy  (very limited)  -slope  (slightly limited)	Very limited  -cutbanks cave  (very limited)  -slope  (slightly limited)
Ur:			į		į į
Urban land    	Not rated    -	Not rated	Not rated 	Not rated    - 	Not rated   
VaB:			İ		i i
Vega alta	Very limited  ~low strength   (very limited)  ~shrink-swell   (moderately limited)	Very limited ~excess fines (thickest layer) ~excess fines (bottom layer)	Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	Very limited  ~too clayey   (very limited)  ~too acid   (slightly limited)	Moderately limited   -too clayey   (moderately limited)   -cutbanks cave   clightly limited)
VaC2:			i		i i
Vega alta	Very limited  -low strength   (very limited)  -shrink-swell   (moderately limited)	Very limited  -excess fines (thickest layer)  -excess fines (bottom layer)	Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer) 	Very limited  -too clayey   (very limited)  -too acid   (slightly limited)  -slope   (slightly limited)	Moderately limited
VcB:			İ		j i
Vega alta    	Very limited   -low strength   (very limited)  -shrink-swell   (moderately limited)	Very limited  -excess fines (thickest layer)  -excess fines (bottom layer)	Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	Very limited  ~too clayey   (very limited)  ~too acid   (slightly limited)	Moderately limited

Map symbol and soil name	   Source for roadfill	   Source for sand	Source for gravel	Source for topsoil	Shallow excavations
VcC2:	   Limitation 	   Limitation 	Limitation	-    Limitation 	Limitation
Vega alta	Very limited  -low strength   (very limited)  -shrink-swell   (moderately limited)	Very limited  -excess fines  (thickest layer)  -excess fines  (bottom layer)	Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	Very limited  -too clayey   (very limited)  -too acid   (slightly limited)  -slope   (slightly limited)	Moderately limited   ~too clayey   (moderately limited   ~cutbanks cave   (slightly limited)   ~slope   (slightly limited)
/eB: Vega baja	  Very limited	  Very limited	  Very limited	  Very limited	  Very limited
vega baja	-low strength   (very limited)   ~shrink-swell   (very limited)   ~wetness   (slightly limited)	very limited   very	<pre>revery finited rexcess fines (bottom layer) rexcess fines (thickest layer)</pre>	<pre>  very limited   ~too clayey   (very limited)   ~wetness   (slightly limited)                                      </pre>	<pre>  very limited   ~wetness   (very limited)   ~too clayey   (limited)   ~flooding   (moderately limited)</pre>
Vg:					
Vigia	Very limited  ~low strength   (very limited)  ~shrink-swell   (very limited)  ~wetness   (limited)	Very limited  ~excess fines   (thickest layer)  ~excess fines   (bottom layer)	Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	Very limited  ~too clayey   (very limited)  ~wetness   (limited)	Very limited  ~wetness   (very limited)  ~too clayey   (limited)  ~flooding   (moderately limited)
Vm:					
Vivi	Not limited    -  -	Possible source  ~excess fines   (thickest layer)  ~possible source   (bottom layer)	Very limited   ~excess fines   (bottom layer)   ~excess fines   (thickest layer)	Very limited  ~too sandy   (very limited)  ~too acid   (slightly limited)	Very limited  ~cutbanks cave   (very limited)  ~flooding   (moderately limited)
VoC2:	 				
Voladora	Very limited  ~low strength   (very limited)  ~shrink-swell   (slightly limited)	Very limited  ~excess fines   (thickest layer)  ~excess fines   (bottom layer)	Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	Very limited  ~too clayey   (very limited)  ~too acid   (limited)  ~slope   (slightly limited)	Limited   ~too clayey   (limited)   ~cutbanks cave   (slightly limited)   ~slope   (slightly limited)

Map symbol and soil name	   Source for roadfill	Source for sand	   Source for gravel	   Source for topsoil	
    VoD2:	   Limitation 	   Limitation 	   Limitation 	   Limitation 	Limitation
Voladora	Very limited   -low strength   (very limited)  -slope   (slightly limited)  -shrink-swell   (slightly limited)	Very limited  -excess fines  (thickest layer)  -excess fines  (bottom layer)	Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	Very limited  -too clayey   (very limited)  -slope   (very limited)  -too acid   (limited)	Very limited  ~slope   (very limited)  ~too clayey   (limited)  ~cutbanks cave   (slightly limited)
   VoE2:   Voladora        	Very limited  -low strength   (very limited)  -slope   (very limited)  -shrink-swell   (slightly limited)	  Very limited  ~excess fines   (thickest layer)  ~excess fines   (bottom layer)	  Very limited  ~excess fines   (bottom layer)  ~excess fines   (thickest layer)	Very limited  -slope (very limited)  -too clayey (very limited)  -too acid (limited)	  Very limited  ~slope   (very limited)  ~too clayey   (limited)  ~cutbanks cave   (slightly limited)
  W:   Water    	  Not rated      -	  Not rated     	  Not rated      -	  Not rated   	  Not rated     